

Listing of Claims

No claims have been added, canceled, or amended. This listing is provided merely for the convenience of the Examiner.

1 1. (Previously Presented) A system for distributing digital subscriber line (XDSL)
2 signals to end users over a telephone wiring plant comprising:
3 a central office for receiving video signals from a video source, the central office
4 including a first XDSL transmission unit for transmitting the received video signals
5 on a twisted pair copper cable along with other telephony and digital data signals, and
6 receiving data signals from end users;
7 at least one end user location having a second XDSL transmission unit for receiving
8 video signals from the twisted pair copper cable and transmitting data signals to the
9 central office; and
10 a regenerator connected to the twisted pair copper cable and located a predetermined
11 distance from the central office, the regenerator comprising:
12 a receiver for receiving XDSL signals transmitted on the twisted pair copper cable
13 from either the central office or the end user;
14 a decoder for decoding the payload of a received XDSL signal into base data;
15 an encoder for repackaging and encoding the base data into a desired protocol
16 format; and
17 a line driver for retransmitting the encoded signal onto the twisted pair copper
18 cable for distribution to an original destination, wherein the predetermined
19 distance for the location of the regenerator corresponds to a point on the
20 twisted pair cable where the signal-to-noise ratio of a transmitted XDSL
21 signal reaches a threshold of minimum acceptable signal quality.

1 2. (Previously Presented) The system of claim 1 wherein the central office transmits
2 XDSL signal using an asynchronous transfer mode (ATM) protocol, and the regenerator encoder
3 is arranged to selectively repackage the base data into either the ATM protocol format or a direct
4 transmission protocol format depending on the protocol requirements of the original destination.

1 3. (Original) The system of claim 1 wherein the XDSL signals comprise very-high-
2 rate digital subscriber line (VDSL) type signals

1 4. (Original) The system of claim 1 wherein the XDSL signals comprise
2 asynchronous digital subscriber line (ADSL) type signals.

1 5. (Original) The system of claim 1 wherein the line driver comprises a variable rate
2 line driver.

1 6. (Original) The system of claim 1 wherein the line driver comprises a fixed rate
2 line driver

1 7. (Previously Presented) A method for distributing digital subscriber line (XDSL)
2 signals to end users over a telephone wiring plant comprising:
3 receiving video signals at a central office from a video source;
4 transmitting the received video signals on a twisted pair copper cable along with other
5 telephony and digital data signals as an XDSL type signal to a terminal located at an
6 end user site, and receiving data signals on the twisted pair copper cable at the central
7 office from an end user terminal;
8 coupling a signal regenerator unit to the twisted pair copper cable at a distance from the
9 central office corresponding to a point on the twisted pair cable where the signal-to-
10 noise ratio of a transmitted XDSL signal reaches a threshold of minimum acceptable
11 signal quality;
12 receiving transmitted XDSL signals at the regenerator, and decoding the received signals
13 into base data;
14 repackaging and encoding the base data into an XDSL signal having a desired protocol
15 format; and
16 retransmitting the XDSL signal to the end user terminal.

1 8. (Previously Presented) The method of claim 7 further comprising transmitting
2 XDSL signals from the central office transmits using an asynchronous transfer mode (ATM)
3 protocol, and selectively repackaging the base data into either the ATM protocol format or a

4 direct transmission protocol format depending on the protocol requirements of the end user
5 terminal.

1 9. (Original) The method of claim 7 further comprising transmitting the received
2 video signals as very-high-rate digital subscriber line (VDSL) type signals

1 10. (Original) The method of claim 7 further comprising transmitting the received
2 video signals as asynchronous digital subscriber line (ADSL) type signals.

1 11. (Original) The method of claim 7 further comprising retransmitting the XDSL
2 signals from the regenerator with a variable data rate.

1 12. (Original) The method of claim 7 further comprising retransmitting the XDSL
2 signals from the regenerator with a fixed data rate.

1 13. (Previously Presented) A regenerator for use in a digital subscriber line (XDSL)
2 signal type signal distribution system, the distribution system including a central office for
3 transmitting video signals on a twisted pair copper cable along with other telephony and digital
4 data signals to at least one end user location, the regenerator comprising:

5 a receiver for receiving XDSL signals transmitted on the twisted pair copper cable from
6 either the central office or the end user;

7 a decoder for decoding the payload of a received XDSL signal into base data;

8 an encoder for repackaging and encoding the base data into a desired protocol format;
9 and

10 a line driver for retransmitting the encoded signal onto the twisted pair copper cable for
11 distribution to an original destination, wherein a predetermined distance for the
12 location of the regenerator corresponds to a point on the twisted pair cable where the
13 signal-to-noise ratio of a transmitted XDSL signal reaches a threshold of minimum
14 acceptable signal quality.

1 14. (Original) The regenerator of claim 13 wherein the receiver, decoder and encoder
2 comprise a very-high-rate digital subscriber line (VDSL) type receiver, decoder and encoder.